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(56) Documents cited  
**GB A 2105891**  
**GB A 2062326**

**GB 0293509**  
**US 3810628**

(58) Field of search  
**G4V**

## (54) Gaming or amusement-with-prizes machines

(57) A fruit machine has a set of co-axial side-by-side reels (1, 2, 3) with symbols around their peripheries, and various combinations of these symbols in a line when the reels stop spinning generate a prize. In addition, within at least one reel (1) there are further co-axial reels (11; 17) the outer ones having windows (5, 12) with translucent symbols through which the inner ones can be seen when viewed radially. Radial alignment of certain combinations of these symbols also generate a prize. These inner reels (11, 17) may be united with the other reels (2, 3) of the side-by-side arrangement.

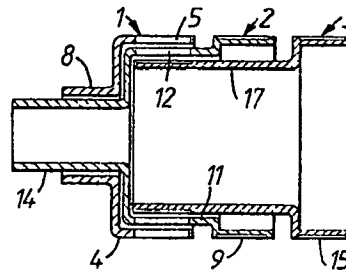


Fig. 2.

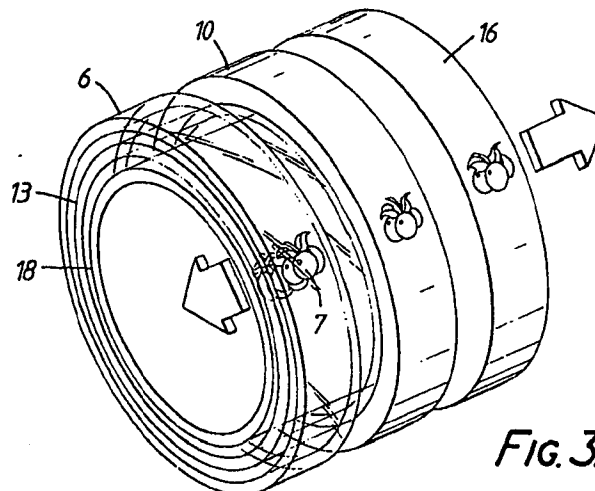


Fig. 3.

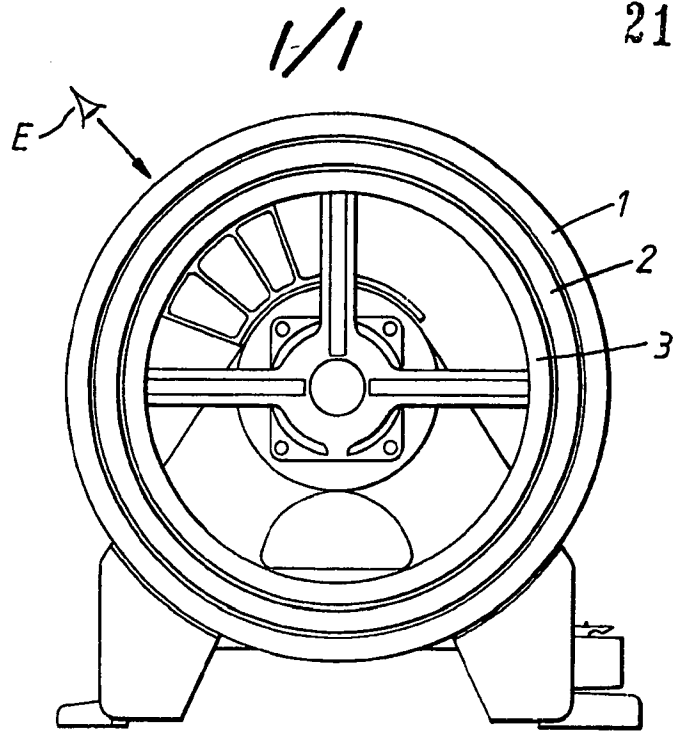


FIG. 1.

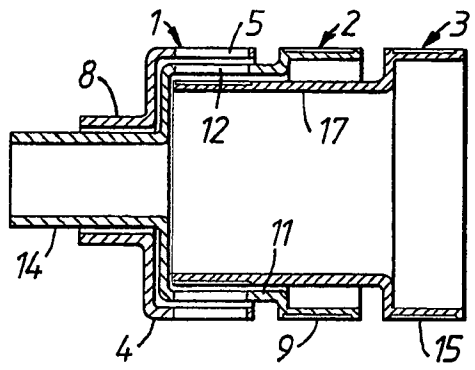


FIG. 2.

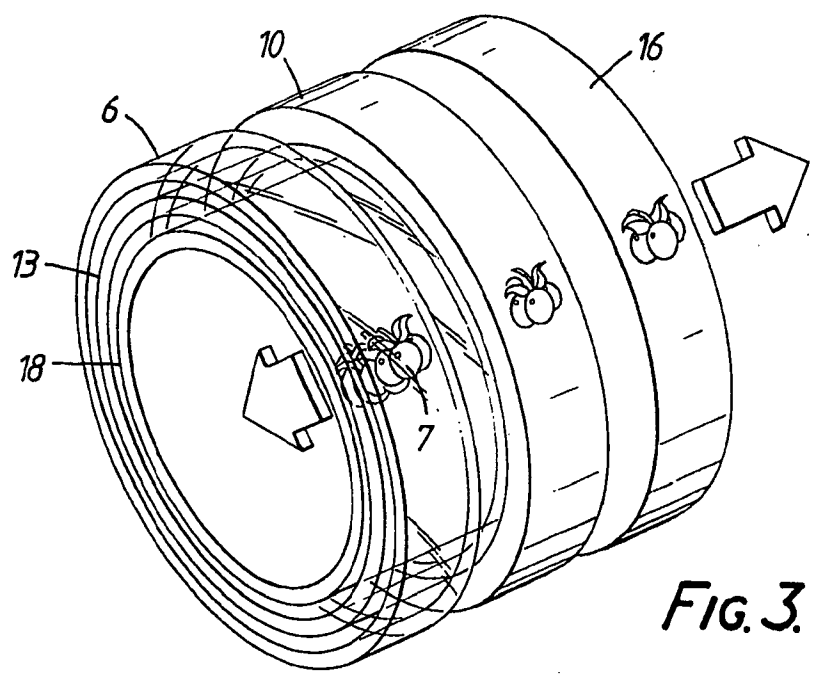


FIG. 3.

## SPECIFICATION

**Improvements relating to gaming or amusement-with-prizes machines**

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This invention relates to gaming or amusement with prizes machines and is primarily concerned with those commonly known as fruit machines. On the insertion of a coin or token, a set of reels or their equivalents can be set in rotation, and then they stop in random fashion. Symbols on the peripheries of the reels are visible through windows, and the combination of symbols showing when the reels have stopped is indicative of whether a prize is awarded or not.

Generally, there are three reels, but sometimes four. There are various ways, known as "features", by which the ordinary rotation and stopping of the reels can be varied, the most common ones probably being the "nudge" and "hold" features. However, at the end of the game it is generally just the three or four symbols on the win line that determine whether or not a prize is awarded.

It is the aim of this invention to provide a further win opportunity other than just the symbols along a horizontal win line.

According to the present invention there is provided a gaming or amusement-with-prizes machine of the kind in which a plurality of members with symbols thereon rotates and stop in random fashion and a win is determined according to the symbols then displayed, wherein at least one member has a translucent annular array of another member, and wherein the radial alignment of certain symbols of the respective arrays when the members stop after rotation is an indication of a win.

There may be more than two such co-radial members, henceforth referred to as reels, but three is probably the practical limit. With more than two reels, the innermost array of symbols will be visible through the translucent outer ones. The inner one may also be translucent and backlighting may be provided within it to assist identification of the radially aligned symbols.

As well as having this radial registry, there will also generally be the "normal" fruit machine win determination from the alignment of symbols across three of our windows in which peripheral portions of side-by-side reels are visible.

These side-by-side reels may be separate, or they may be united with respective reels of the co-radial set. For example, this set may provide by its innermost reel the left hand reel of a group of three side-by-side. The middle reel of this group may then be integral with the intermediate one of the co-radial set, while the right hand reel is integral with the innermost one of that set, the reels having a telescoped or mutually sleeved relationship. With such an arrangement, as well as using the left hand set for determining prizes from radial alignment of symbols, the middle reel may have a translucent array through which is visible another annular symbol array on the intermediate cylindrical portion joining the right hand reel to the innermost one of the co-radial set. The radial registry of

certain symbols on the central, double reel may then also indicate prizes.

The machine will not necessarily be limited to having just this one feature, and it may incorporate one or more other features such as "nudge" or "hold".

For a better understanding of the invention, one embodiment will now be described, by way of example, with reference to the accompanying drawing, in which:

*Figure 1* is a side elevation of a co-radial set of reels for a fruit machine,

*Figure 2* is an axial section of the reels of a fruit machine incorporating a set such as that of *Figure 1*, and

*Figure 3* is a perspective diagram of such reels.

A fruit machine has three reels 1, 2 and 3 in a co-axial group, portions of their outer peripheries being visible to an eye E through side-by-side windows, in conventional fashion.

The reel 1 has a cylindrical portion 4 in which are windows 5, such as described in Patent No. 2,092,795B. A transparent band 6 (*Figure 3*) is wrapped around this portion 4, and has symbols 7 translucently imprinted on it, there being a symbol registering with each window 5. On the left hand side as seen in *Figure 2*, the reel 1 steps inwardly from the portion 4 and then extends axially, forming a hollow stub shaft 8 by which the reel is driven.

The reel 2 has an end cylindrical portion 9 of the same diameter as the portion 4 and on which a symbol band 10 is mounted. This need not be translucent. On the side adjacent the reel 1 there is an inward step and the reel 2 continues axially in a cylindrical portion 11 which, within the portion 4, has an annular array of windows 12 equal in number to the windows 5. This array is encircled by another transparent band 15 with translucent symbols over respective windows 12. Beyond the portion 11 the reel steps radially inwardly again and continues axially as a hollow shaft 14 which projects beyond the shaft 8 so that drive can be applied to it.

The reel 3 has an end cylindrical portion 15 of the same diameter as the portion 4 and 9 and which carries a symbol band 6. On the side adjacent the reel 2, there is an inward step and the reel 3 continues axially in a cylindrical portion 17 to within portions 4 and 11 of the reels 1 and 2. At this end, it is provided with an annular array of symbols indicated by band 18. This need not be translucent, but it should be. The portion 17 would then have windows similar to the windows 5 and 12 so that backlighting within the reel assembly would help illuminate the overlaid symbols. The reel 3 will be driven from the right hand side as seen in *Figure 2*.

When playing the machine, the reels will be rotated in the ordinary way and stop in an apparently random fashion. If there is a winning combination of symbols in a line across the bands 6, 10 and 16, then a prize will be awarded in the familiar way. However, in addition to this, there will be a radial alignment of symbols on the bands 6, 13 and 18.

When these are in certain combinations, for example if all are the same when the outermost one is on the normal transverse win line, then that also will generate a prize.

- 5 In addition to using the left hand reel set, the portion 9 of the middle reel 2 could also have windows, and the band 10 would then be translucent, enabling a further band on the portion 17 to be visible. Radial registry of certain symbols at this  
10 central reel position would then also be arranged to generate a prize.

It would also be possible to have the inner reels of the co-radial set independent of the reels 2 and 3, although the drive system then becomes more  
15 complicated. Indeed, there could be more than one such set of three co-radial reels.

### CLAIMS

- 20 1. A gaming or amusement-with-prizes machine of the kind in which a plurality of members with symbols thereon rotate and stop in random fashion and a win is determined according to the symbols then displayed, wherein at least one member  
25 has a translucent annular array of symbols encircling an annular symbol array of another member, and wherein the radial alignment of certain symbols of the respective arrays when the members stop after rotation is an indication of a win.
- 30 2. A machine as claimed in Claim 1, wherein there are more than two members, the innermost one having an annular array visible through the translucent outer ones.
3. A machine as claimed in Claim 1 or 2,  
35 wherein the innermost array is also translucent and backlighting is provided within it.
4. A machine as claimed in Claim 1, 2 or 3, wherein in addition to said members there are randomly rotatable in addition to said members there  
40 are randomly rotatable reels in side-by-side co-axial arrangement each with symbols around their peripheries, certain combinations of symbols displayed when the reels stop generating a win.
5. A machine as claimed in Claim 4, wherein  
45 one of said reels is combined with the outermost one of said members and there is a symbol array common to both.
6. A machine as claimed in Claim 5, wherein another reel is united with a respective other member.  
50 ber.
7. A machine as claimed in Claim 6, wherein a further reel is united with a respective further member.
8. A machine as claimed in Claim 7, wherein  
55 said other reel has a translucent symbol array which encircles an annular symbol array on a portion of said further member, and wherein the radial alignment of certain symbols of these arrays wherein the reels stop after rotation is an indication of a win.  
60 tion of a win.
9. A gaming or amusement-with-prizes machine substantially as hereinbefore described with reference to the accompanying drawings.